Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A method for verifying a minimal level sensitive timing abstraction model, comprising:

extracting a plurality of parameters from a modeled circuit that includes sequential elements controlled by internally generated clock ~~elements~~ signals;

creating an echo-circuit that represents the plurality of parameters with nodes and time arcs, wherein the echo-circuit is ~~lightweight and can be input into~~ stimulus independent, port-based, has no internal latch nodes, and is used in any static timing analysis (STA) tools, wherein the echo-circuit includes a dummy latch node that is controlled by an internally generated clock signal that becomes active when a latest clock signal from the circuit arrives at the output port, and wherein the echo-circuit enables a signal to propagate from an input port to an output port only if the signal arrives at the output port later than a latest clock signal from ~~a most critical~~ any pin clock ~~element~~ signal controlling the output port;

identifying relevant timing paths in the echo-circuit, wherein the relevant timing paths are associated with the plurality of parameters;

identifying paths in the modeled circuit that connect sequential elements and correspond to the relevant timing paths in the echo-circuit; and

comparing the relevant timing paths in the echo-circuit with the corresponding paths in the modeled circuit.

2. (original): The method of claim 1, wherein the extracting the plurality of parameters step includes extracting a required time parameter associated with a setup check node.

3. (original): The method of claim 1, wherein the extracting the plurality of parameters step includes extracting a required time parameter associated with a hold check node.

4. (currently amended): The method of claim 1, wherein the extracting the plurality of parameters step includes extracting a valid time parameter associated with ~~a~~ the dummy latch node~~, wherein the dummy latch node is controlled by the most critical clock element~~.

5. (original): The method of claim 1, wherein the extracting the plurality of parameters step includes extracting a transparent delay arc parameter that represents a time delay a signal passes from an input port to an output port of the modeled circuit.

6. (original): The method of claim 1, further comprising modifying names of the nodes in the echo-circuit to correspond to names of corresponding sequential elements in the modeled circuit.

7. (original): The method of claim 1, further comprising generating an error report if the relevant timing paths in the echo-circuit do not match the corresponding paths in the modeled circuit.

8. (cancelled).

9. (original): The method of claim 1, wherein the creating the echo-circuit step includes creating a timing abstraction model that has level triggered latches.

10. (cancelled).

11. (currently amended): An apparatus for verifying a minimal level sensitive timing abstraction model, comprising:

means for extracting a plurality of parameters from a modeled circuit that includes sequential elements controlled by internally generated clock ~~elements~~ signals;

means for creating an echo-circuit that represents the plurality of parameters with nodes and time arcs, wherein the echo-circuit is ~~lightweight and can be input into~~ stimulus independent, port-based, has no internal latch nodes, and is used in any static timing analysis (STA) tools, wherein the echo-circuit includes a dummy latch node that is controlled by an internally generated clock signal that becomes active when a latest clock signal from the circuit arrives at the output port, and wherein the echo-circuit enables a signal to propagate from an input port to an output port only if the signal arrives at the output port later than a

latest clock signal from ~~a most critical~~ any pin clock ~~element~~ signal controlling the output port;

means for identifying relevant timing paths in the echo-circuit, wherein the relevant timing paths are associated with the plurality of parameters;

means for identifying paths in the modeled circuit that connect sequential elements and correspond to the relevant timing paths in the echo-circuit; and

means for comparing the relevant timing paths in the echo-circuit with the corresponding paths in the modeled circuit.

12. (original): The apparatus of claim 11, further comprising means for modifying names of the nodes in the echo-circuit to correspond to names of corresponding sequential elements in the modeled circuit.

13. (original): The apparatus of claim 11, further comprising means for generating an error report if the relevant timing paths in the echo-circuit do not match the corresponding paths in the modeled circuit.

14. (currently amended): A computer readable medium providing instructions for verifying a minimal level sensitive timing abstraction model, the instructions comprising:

extracting a plurality of parameters from a modeled circuit that includes sequential elements controlled by internally generated clock ~~elements~~ signals;

creating an echo-circuit that represents the plurality of parameters with nodes and time arcs, wherein the echo-circuit is ~~lightweight and can be input into~~ stimulus independent, port-based, has no internal latch nodes, and is used in any static timing analysis (STA) tools, wherein the echo-circuit includes a dummy latch node that is controlled by an internally generated clock signal that becomes active when a latest clock signal from the circuit arrives at the output port, and wherein the echo-circuit enables a signal to propagate from an input port to an output port only if the signal arrives at the output port later than a latest clock signal from ~~a most critical~~ any pin clock ~~element~~ signal controlling the output port;

identifying relevant timing paths in the echo-circuit, wherein the relevant timing paths are associated with the plurality of parameters;

identifying paths in the modeled circuit that connect sequential elements and correspond to the relevant timing paths in the echo-circuit; and

comparing the relevant timing paths in the echo-circuit with the corresponding paths in the modeled circuit.

15. (original): The computer readable medium of claim 14, further comprising instructions for modifying names of the nodes in the echo-circuit to correspond to names of corresponding sequential elements in the modeled circuit.

16. (original): The computer readable medium of claim 14, further comprising instructions for generating an error report if the relevant timing paths in the echo-circuit do not match the corresponding paths in the modeled circuit.

17. (original): The computer readable medium of claim 14, wherein the instructions for extracting the plurality of parameters step includes instructions for extracting a required time parameter associated with a setup check node.

18. (original): The computer readable medium of claim 14, wherein the instructions for extracting the plurality of parameters step includes instructions for extracting a required time parameter associated with a hold check node.

19. (currently amended): The computer readable medium of claim 14, wherein the instructions for extracting the plurality of parameters step includes instructions for extracting a valid time parameter associated with ~~a~~ the dummy latch node.

20. (original): The computer readable medium of claim 14, wherein the instructions for extracting the plurality of parameters step includes instructions for extracting a transparent delay arc parameter that represents a time delay a signal passes from an input port to an output port of the modeled circuit.